

REMARKS/ARGUMENTS

The Office Action of October 9, 2003 has been reviewed and these remarks are responsive thereto. Reconsideration and allowance of the instant application are respectfully requested.

Claims 58-63 are pending in this application. By this amendment, non-elected withdrawn claims 47-57 have been cancelled without prejudice or disclaimer. Editorial changes have been made to the specification, which place the application in better form for allowance.

Applicants note that a Request For Drawing Correction was filed on July 1, 2002, and Formal Drawings were submitted on December 5, 2003. Applicants respectfully request confirmation that these drawings have been considered and approved.

Claims 58-63 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 4,106,684 to Hartbauer et al. (Hartbauer) in combination with U.S. Patent No. 5,257,748 to Morizzo (Morizzo). Applicants respectfully traverse these rejections.

The Office Action states that it would have been obvious "to have modified Hartbauer's device by providing the control means and the motor as taught by Morizzo in order to obtain [a] device that automatically controls all apparatus operations reducing waste material." The Office Action is silent on, and it is entirely unclear, how such a modification of Hartbauer's complicated mechanical sensing and transfer mechanism would be carried out, nor do the references provide any motivation to undertake such a modification. Moreover, such a combination would not produce the claimed inventive dispenser.

The present invention as recited in independent claim 58 pertains to a dispenser that affords advantages through use of a transfer mechanism that includes a transfer link and an actuator that is electrically activated to drive the transfer link to a position that permits the transfer member to move toward the feed nip (to move a leading segment of sheet material into the nip). As discussed in the specification at paragraph 17, co-pending commonly assigned application Serial No. 09/604,811 describes an electric motor powered transfer mechanism that provides several advantages over the prior art. In particular, as compared to purely mechanical mechanisms (such as taught by Hartbauer), a motor-driven transfer mechanism facilitates electrical activation of a transfer operation upon detection of an absence of sheet material within the drive mechanism to thereby increase reliability and avoid simultaneous dispensing from two

rolls. The present invention of claim 58 can provide many of the same advantages. At the same time, the utilization of a transfer link and an electrically activated actuator that moves the transfer link can require less motor power (and hence electrical energy) as compared with a motor driven transfer mechanism having a motor that drives the transfer member.

Exemplary embodiments of the claimed invention are shown in Figures 16A-16E and discussed in paragraphs 112-116 of the application. As shown in Figure 16A, pivotally mounted transfer bar 200 is braced against the inside front surface of closed cover 13' and biased rearward by spring 201 toward feed nip 37'. Transfer link 205 holds transfer bar 200 in a set position away from feed nip 37'. Transfer link 205 is biased by spring 207 into a position for holding transfer bar 200 in the set position. As such, the transfer mechanism is set to operate under potential energy stored in spring 201 to mechanically feed a web sheet in the feed nip. Transfer motor 199 enables release of the potential energy by rotating transfer link 205 against the pull of spring 207 to free transfer bar 200 so that it can rotate under the bias of spring 201 toward feed nip 37'. Thus, motor 199 actuates the transfer mechanism, which operates under potential energy stored in spring 201, to mechanically feed a web sheet into the feed nip.

In contrast to the actuator of claim 58, which is electrically activated for driving a transfer link to a release position, Hartbauer discloses a purely mechanical transfer mechanism that relies on manual activity to operate. The Hartbauer transfer mechanism includes a transfer bar 118 connected to a cam follower 124, which are both biased in a counter-clockwise direction by coil spring 126 toward engagement with the feed nip. (See Hartbauer, col. 5, lines 34-54 and Figs. 3, 7 and 8). The cam follower 124 follows cam element 104 and guides the position of transfer bar 118. The cam follower 124 is urged by coil spring 126 toward into an internal pocket or depression formed by raised cam portion 106. (See Hartbauer, col. 7, lines 32-35). When cam follower 124 enters the depression of raised cam portion 106, it permits transfer bar 118 to move toward rollers 12 and 14 that form the feed nip.

Hartbauer relies on user operation of a handle 18 to translate motion transfer means 28A into contact with mechanical linkages that eventually rotate cam element 104 and permit cam follower 124 to move toward the internal pocket or depression of raised cam portion 106. As such, movement of motion transfer means 28A (referred to as an 'actuator' in the Office Action) is tied to movement of the driving system for the feed mechanism (i.e., movement of handle 18)

and relies on several mechanical linkages for actuation of the transfer mechanism. This contrasts starkly with electrical activation of an actuator for driving a transfer link to a release position as recited in claim 58.

In contrast to the detection system recited in claim 58, which is expressly for detecting an absence of sheet material in a feed mechanism, Hartbauer discloses a sensing system for sensing the absence of a primary stub roll (independent of whether sheet material is still present in the feed mechanism). As shown in Figs. 3 and 10 of Hartbauer, a sensing arm 42 rests against the primary stub roll 22, which falls to the bottom of the dispenser when the sheet material is close to being depleted. At this time, sensing arm 42 falls downward and displaces activator pin 48 against follower member 52 to move it counterclockwise. (See col. 6, lines 32-44). This affects various mechanical linkages to ultimately engage cam element 104 to permit it to move as a user operates handle 18.

The Office Action suggests combining Hartbauer with the control means and motor of Morizzo. Morizzo discloses a batcher-type sheet material winding apparatus, which includes a rotating cutting blade that shears feed sheet material when a core is fully wound. (*See Abstract*). Morizzo teaches the use of an electric drive motor to rotate an arm assembly 268 to which an orbital cutting blade 266 is attached. (*See Fig. 11*). However, Morizzo provides no teaching whatsoever regarding a transfer member used to initiate feed from a new roll, and no suggestion of how a motor and control means could be advantageously implemented in such a roll feed transfer system. Further, Morizzo provides no teaching whatsoever regarding a detection system for detecting an absence of sheet material within a feed mechanism, and no suggestion of how a control means could be advantageously implemented in a roll feed transfer system to detect an absence of sheet material within a feed mechanism.

Hartbauer does not provide any indication that it would be desirable to implement a motor and electrical control means in its roll feed transfer system or a detection system for detecting an absence of sheet material within a feed mechanism, and it is entirely unclear how these would even be accomplished. The proposed modification of Hartbauer's device to provide the control means and motor of Morizzo amounts to an impermissible attempted hindsight reconstruction of the claimed invention. As has been noted, it is unclear how such a combination could be accomplished, much less be obvious to one of ordinary skill in the art. At best, the

combination would seemingly destroy or render superfluous the disclosed function and structure of Hartbauer's elaborate mechanical system, including handle 18 and the mechanical linkages between motion transfer means 28A and cam follower 124 (referred to as a 'transfer link' in the Office Action), as well as the mechanical linkages between sensing arm 42 and cam follower 124.

Moreover, a combination of Hartbauer and Morizzo as proposed would not result in the claimed invention. Presumably, such a hypothetical device would drive, with a motor, a transfer bar (rather than the blade of Morizzo). Such a hypothetical device also would presumably include the detection system of Hartbauer, which detects absence of a stub roll or stub core in a dispensing position (see Fig. 10 – sensing arm 42 rotates forward upon stub core 22 dropping). In contrast, the inventive dispenser of claim 58 provides electrical activation of an actuator that drives a transfer link (rather than a transfer bar). In addition, the inventive dispenser of claim 58 provides a detection system that detects an absence of sheet material within a feed mechanism rather than the absence of a stub roll.

Accordingly, Applicants respectfully submit that independent claim 58 and claims 59-61 depending therefrom are allowable over the prior art of record.

Application No.: 10/092,350
Reply to Office Action of February 12, 2004

Based on the foregoing, Applicants respectfully submit that the application is in condition for allowance and a Notice to that effect is earnestly solicited. Should the Examiner believe that anything further is desirable in order to place the application in even better form for allowance, the Examiner is respectfully urged to contact Applicants' undersigned representative at the below-listed number.

Respectfully submitted,

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